Variable capacitance diode for AM tuning
AMチューナ用電圧可変容量ダイオード

KV1294BM, KV1298M, KV1298BM

FEATURES

- Excellet Matching Between Elements
- Excellent Linearity of The CV Curve
- High Q: Q=200 to
- Extra Llarge Capacitance Ratio: A=17.0 to

- 優れた素子間マッチング
- CV特性の優れた直線性
- 高いQ値: Q=200~
- 極めて大きな容量変化比: A=17.0~

CLASSIFICATION

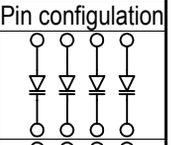
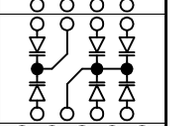
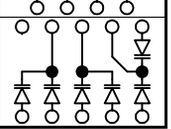
C \ Rank		1	2	3
C_1	MIN	600	621	643
	MAX	627	649	670

ORDERING INFORMATION

- KV1294BMTL…Storage direction: TL(Left type)
- KV1298MTL…Storage direction: TL(Left type)
- KV1298BMTL…Storage direction: TL(Left type)

* Part name + Storage direction

PACKAGE OUTLINE

Part name	Package	Marking	Pin configulation
KV1294BM	 SOP-8	94B	
KV1298M	 SOP-8	298	
KV1298BM	 SSOP-10	98B	

ABSOLUTE MAXIMUM RATINGS

Parameter 項目	Symbol 記号	Rating 定格	Unit 単位	Remarks 備考
Reverse Voltage 逆方向電圧	V_R	30	V	
Forward Current 順方向電流	I_F	50	mA	
Power Dissipation 許容消費電力	P_D	100	mW	
Storage Temperature Range 保存温度範囲	T_{STG}	-55 to 150	°C	
Operating Temperature Range 動作温度範囲	T_{OP}	-55 to +85	°C	

ELECTRICAL CHARCTERISTICS

T_A=25°C

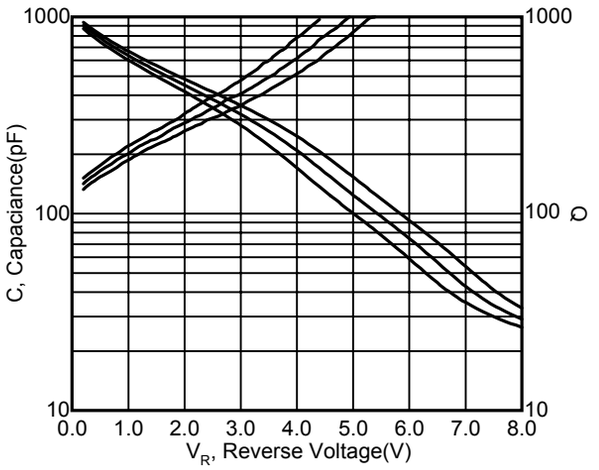
Parameter 項目	Symbol 記号	Value 規格 MIN	TYP	MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	20			V	I_R=10μA
Reverse Current 逆方向電流	I_R			50	nA	V_R=16V
Diode Capacitance 容量値	C_1	600.0		670.0	pF	V_R=1V, f=1MHz
	C_8	24.0		34.0	pF	V_R=8V, f=1MHz
Capacitance Tolerance 容量偏差	ΔC_1			2.0	%	KV1294BM V_R=1V,
				2.5		KV1298M/BM f=1MHz*1
	ΔC_4			3.0	%	KV1294BM V_R=4V,
				3.5		KV1298M/BM f=1MHz*1
	ΔC_8			3.0	%	KV1294BM V_R=8V,
				3.5		KV1298M/BM f=1MHz*1
Q	Q	200				C=400pF, f=1MHz
Capacitance Ratio 容量変化比	A	17.0				C_1/C_8

* Diode Capactance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

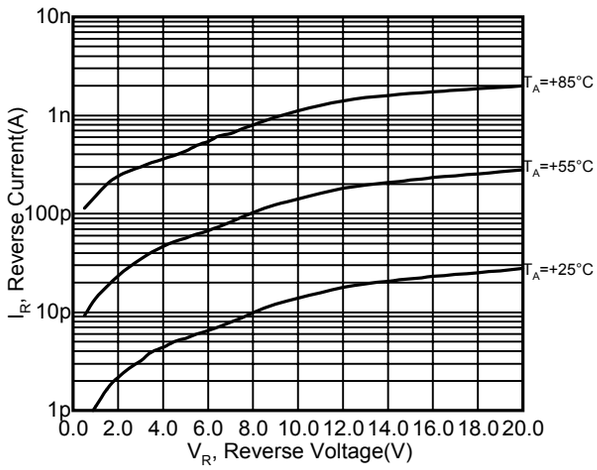
*1 $(C_{MAX}-C_{MIN})/C_{MIN}\times 100$

TYPICAL PREFORAMNCE CHARACTERISTICS

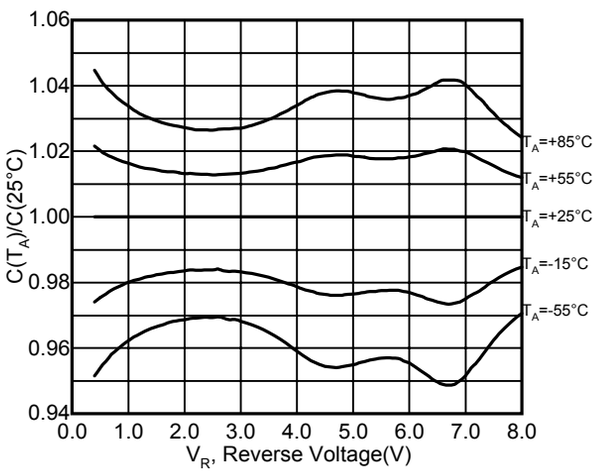
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q　f=1MHz, T_A=25°C



■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流　T_A=+25 / +55 / +85°C



■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$　f=1MHz T_A=-55 to +85°C



■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数　f=1MHz, T_A=25°C